

Lauren Gawne, Nathan W. Hill (Eds.)

**Evidential Systems of Tibetan Languages**

# Trends in Linguistics Studies and Monographs

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## Volume 302

# Evidential Systems of Tibetan Languages

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Edited by  
Lauren Gawne  
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Nathan W. Hill

## 5 Perfect experiential constructions: the inferential semantics of direct evidence

Man kann viel sehn, wenn man zwei Augen hat und nicht blind ist und die Sonn scheint.  
—Marie

### 5.1 Introduction

In his typological categorization of evidential systems, Thomas Willett observes that “the primary evidential parameter expressed in natural language is that of **direct evidence** versus **indirect evidence**” (1988: 57 emphasis in original); he sees evidence from the senses as a sub-type of ‘direct’ and ‘inferring’ as one sub-type of ‘indirect’ (1988: 57). In a more recent typological categorization, Alexandra Aikhenvald divides the world’s evidential categories into six “recurrent semantic parameters” (2004: 63), viz. visual, sensory, inference, assumption, hearsay and quotative (2004: 65); although “a number of these six parameters can be subsumed under one evidential specification” (2004: 64), she does not observe crossover between the visual and inferential. In a similar vein, Scott DeLancey holds that “direct vs. indirect evidence is the fundamental evidential distinction” (2012: 540), and Hengeveld and Olbertz assert that “a case of direct perception” and “a case of inference on the basis of perception” are “two completely different cases when seen from the evidential perspective” (2012: 495). Agreement with the dominant perspective that starkly separates sensory evidence from inference is not universal. Tournadre remarks that “l’inférentiel est un type de « testimonial » particulier, puisqu’il implique une opération construite à partir d’une *constatation* (d’indices, de traces, etc)” (1994: 158 emphasis in original). Similarly, de Haan classifies inference along with sense evidence as a sub-type of direct evidence (2001: 195). According to his semantic analysis the “inferential evidential has certain elements in common with [...] sensory evidentials (such as visual evidentiality)” (2001: 193).

To the extent that any inference pertains to the world outside, for biological reasons this inference will originate with a sense perception. One must presume that the authors who see no overlap between perception and inference do not espouse

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**Note:** I would like to thank the British Academy and the European Research Council for support during the course of this research. Abbreviations appear at the end of this chapter. In Tibetan, any noun phrase not specified for case should be construed as absolutive.

an analysis that totally precludes the use of sense perceptions in the drawing of inferences, but rather they draw an empirical generalization on the basis of the distribution of language specific structural morphosyntactic categories. A possible paraphrase of this perspective is that all languages with grammaticalized evidentials fail to employ the evidential category used for (non-inferential) direct perception in inference contexts. This essay assumes such a paraphrase is a fair reflection of a view Willett, Aikhenvald, DeLancey, and Hengevel and Obertz share.

A number of previously published descriptions of languages, showing interactions between direct evidence and inference appeared prior to Willett (1988). Rule (1977: 71–75) describes an evidential category of ‘visual evidence’ in Foe that is distinct from both ‘seen’ and ‘deduced’; this category exactly strides Willett’s unbreachable chasm. Willett appears unaware of Rule (1977), but Aikhenvald accommodates the Foe system, putting the ‘seen’, ‘visual evidence’ and ‘deduced’ respectively into her ‘visual’, ‘inference’ and ‘assumptive’ parameters (2004: 63). Gordon (1986: 76, Note 4) notes in Maricopa the use of a lexical verb *yuu* ‘see’ in inference contexts. Although both Willett (1988: 68) and Aikhenvald (2004: 275) cite Gordon’s work, they appear to have overlooked the relevant footnote and its importance. Watahomigie et al. (1982: 395) report an evidential system in Hualapai, which systematically collapses inference and direct evidence in certain contexts. Willett and Aikhenvald take no notice of the Hualapai system.<sup>1</sup> The perfect experiential construction found in Sherpa, Duna, Oksapmin, Bogaia, and ‘Lhasa’ Tibetan, in which the conjunction of sensory evidence and perfect tense<sup>2</sup> gives rise to the semantics of inference, provides further counter-evidence to the dominant perspective.<sup>3</sup> Cognizance of the perfect experiential construction in these five languages permits its recognition also in Kham and Kashaya.

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**1** In another case of interaction between direct evidentiality and inference, Matses has a binary evidential opposition between conjecture and non-conjecture, in which direct experience and inference constitute the two sub-specifications of non-conjecture. Relying on Aikhenvald (2004), Fleck distinguishes three evidential categories: experiential (-o, -onda, -denne), inferential (-ak, -nēdak, -ampik, -nēdampik) and conjecture (-aṣh and -nēdaṣh) (2007: 593), but his own description of the co-occurrence constraints of these suffixes belies this analysis. Whereas the “conjecture suffixes, -aṣh and -nēdaṣh, cannot combine with any of the other evidential inflections” (2007: 602) “one of the experiential suffixes (-o, -onda, or -denne) must be used directly after the inferential suffix” (2007: 599). So, Matses has two evidential categories (conjecture and non-conjecture), of which conjecture is mono-morphemic, whereas non-conjecture is bi-morphemic, the first morpheme specifying time from event to detection and the second morpheme specifying time from detection to report. Thus, inferential and experiential belong to the same evidential specification.

**2** Through this essay I use ‘tense’ as equivalent to Greek *chrónos* or Latin *tempus*, i.e. I do not intend ‘tense’ as opposed to ‘aspect’.

**3** Willett (1988) and Aikhenvald (2004) cite the article of Woodbury (1986) on Sherpa, but without realizing that his description vitiates their overall typologies.



The goal of this essay is emphatically not to demonstrate that ‘perfect experiential’ is a novel typological category, rather its modest aim is to correct a common misunderstanding of the relationship between inference and direct evidence present in the works of others. Because the goal is negative the ontological status of ‘inference’ and ‘direct evidence’ as categories in the conception of previous researchers is immaterial. As Nāgārjuna argued long ago, to show that the view of another is inconsistent, whether internally inconsistent or contradicted by observation, it is unnecessary to commit to the validity of the terms of the debate, but suffices to manipulate these terms in a way analogous to the interlocutor. Lest the promotion of the ‘perfect experiential’ as a productive conceptualization of these language specific phenomena take on the air of a newly discovered platonic form, a general adumbration of the tasks and limits of linguistic typology within the context of recent methodological discussions precedes discussion of the proposed application of the term ‘perfect experiential’ in particular languages.

### 5.1.1 Terminological and theoretical preliminaries

Linguistic typology faces the hurdle of employing cross-linguistic terminology to compare the grammatical categories of individual languages as definable in *sui generis* structural terms. Broadly speaking there are two current approaches to this challenge. One school posits pre-established universal grammatical categories that particular languages instantiate (Dixon 2010; Newmeyer 2007, 2010). Researchers operating in this tradition refrain from making explicit the ontological status of these categories or the epistemological means of accessing them. The alternative school accepts the structuralist position that “all linguistic categories are language specific” (Lazard 2012: 249) and makes cross linguistic comparisons on the basis of ‘intuitive conceptual frameworks’ (Lazard 2012: 250) or ‘comparative concepts’ (Haspelmath 2010a). Newmeyer is critical of this latter approach, noting that Haspelmath employs thematic roles among his comparative concepts, and that “there is no construct as murky in ANY subdivision of linguistic theory as that of ‘thematic role’” (2010: 689 emphasis in original).<sup>4</sup> Haspelmath offers the pragmatic but unpersuasive reply that “problems with such semantic

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<sup>4</sup> Newmeyer cites Dowty’s observation that thematic roles are also beset with ontological and epistemological problems, namely “(i) lack of agreement among linguists as to which thematic roles exist, and (ii) the lack of any effective way to independently justify the assignment of noun phrases to thematic roles in particular sentences” (Dowty 1989: 70). Rather than dismissing thematic roles in a spasm of aporia, as this quote might imply he does, Dowty instead proposes an account of thematic roles using model theoretic semantics.

roles have never arisen in a typological context” and typology “is happy to limit its generalizations to clear cases of agents, patients, and recipients” (2010b: 697). Haspelmath does not specify how we can know whether a particular case of an agent, patient, etc. is clear. If roles are messy and contested but no typologists complain, this speaks more to the phlegmatic disposition of typologists than it does to the suitability of semantic roles as methodological tools.

An appeal to semantics implies the need for a semantic theory; Newmeyer points to the dozens of incommensurate semantic theories in circulation as evidence of the uphill battle facing Haspelmath’s comparative concepts (2007: 139). The problem is worse than Newmeyer presents—although semantics thrives as a sub-discipline of linguistics, Bloomfield’s objection that “the study of language can be conducted without special assumptions only so long as we pay no attention to the meaning of what is spoken” (1933: 75 and 139–157) remains unanswered. If, as Bloomfield suggests, semantics is itself an impossibility, then Haspelmath’s comparative concepts are doomed to remain loose, vague, and indeterminate. The typologist has no means by which to understand his own most effective tools. It is as if a chemist, having added a droplet to a beaker of liquid, observes the liquid turn red, and confidently declares the droplet to contain acid, despite readily admitting that he does not know (even cannot know) the composition of the liquid, let alone why it changes red.

But language is not a chemical. Linguists lack labs or machines to determine the presence or non presence of a particular purported meaning; in the words of Haspelmath “pre-established categories don’t exist” (2007). Language, as a social institution (Sapir 1921: 2), presents methodological hurdles analogous to other cultural practices studied in a cross-cultural perspective. Consequently, Haspelmath’s comparative concepts draw inspiration from the comparative study of wedding dress and legal systems (2010a: 681).<sup>5</sup> In 2003–2004 Harvard’s Tozzier Library hosted an exhibition of footwear across cultures and ages. The visitor who hoped to behold shoeicity itself left disappointed, but his naïveté and no curatorial failing engendered his disappointment.

When a linguist chooses a semantic label for a morphosyntactic phenomenon, he does this on analogy to the use of that label in the description of other languages.

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<sup>5</sup> In reply to this point, Newmeyer cites a comment of Greenberg’s that because “language as a subject matter possesses certain peculiarities such as the arbitrariness of the relation between form and meaning” (1973: 59) the use of linguistic methodology in other disciplines have been unsuccessful. This reply misses the point. Haspelmath does not encourage anthropologists to use the methods of linguistics, but he encourages linguistics to use the methods of anthropologists. Newmeyer’s observation that attempts at applying the comparative method to social institutions such as mythology, religion, and law “all resulted in failure” (2010: 693), reveals ignorance of recent research in historical linguistics and comparative mythology (e.g. Watkins 1995 and Witzel 2012).

If a student working on a far-flung language finds a grammatical phenomenon he is unsure how to describe, he rummages through the linguistic literature for analogues to serve as inspiration. This groping for labels results in terminological choices that in hindsight may seem unfortunate. For example, in Classical Tibetan ‘terminative’ refers to a case with the allomorphs *-tu*, *-du*, *-r*, and *-su* that is used for destinations of movement or transformations, equivalent to ‘to’, ‘into’ or ‘as’ in English (Hill 2011: 19–35), but cases known as ‘terminative’ in other languages such as Basque *-ra-ino* or Hungarian *-ig* instead correspond in meaning to English ‘up to’ or ‘until’ (Creissels 2008: 610, 619). Since the relationship between *signifiant* and *signifié* is arbitrary no harm need arise from such situations. The use of the term ‘aorist’ to describe verbal forms of very different meaning in Greek and Tuareg poses no danger either to the classicist who knows that *élthon* ‘went’ is an aorist or to the Berberist who knows that *àqqəl* ‘will return’ is an aorist (Belkadi 2013: 137). On the other hand, the typologist lives in ubiquitous and constant danger of presuming that *élthon* and *àqqəl* are incarnations of a ‘true aorist’.<sup>6</sup> There is no grammatical category in any language that refers to the same concept as the grammatical category of another language for the simple reason that the two categories will face differing structural oppositions; to speak of a ‘true evidential’ (DeLancey 2001: 376), ‘true mirative’ (DeLancey 2012: 553), or ‘true egophoricity’ (DeLancey 2012: 555), etc. is always a mistake.

To have any concrete meaning the chain of analogies a typological term gestures to must be moored to a particular phenomenon in a particular language. To say of *ni* and *kyan* in Classical Tibetan that they are similar in function to *wa* and *mo* in Japanese is more succinct, accurate, and verifiable than to say that *ni* is a ‘subject particle’ (Miller 1970: 90), ‘Isolationspartikel’ (Hahn 1996: 63), ‘topicalizer’ (Beyer 1992: 275), or whatever. The typologist should serve as matchmaker in such a case between the Tibetologist and the Japanologist. By aggregating observations on phenomena in diverse languages the typologist lowers the transaction cost for an investigator looking at a tidbit in one language to find a tidbit in another that he might find interesting. For typology to provide a milieu to assist those confronting the analysis of a specific language in understanding what they witness with greater insight, that is goal enough. For this purpose he assembles a menagerie, a cabinet of curiosities that may be more or less skillfully curated. The temptation remains imminent to slip from describing *ni* to describing subjecthood, topicality, or whatever, but subjecthood and topicality are not things in the world; *ni* and *wa* are.

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<sup>6</sup> The danger is mitigated in cases such as ‘aorist’ where the non-equivalence of the meaning is obvious. The temptation to believe that the ergative in Tibetan and Basque are ‘the same thing’ is much greater, and consequently more dangerous, than the temptation to think that the ‘terminative’ in these two languages is ‘the same thing’.

The more in focus remain the realia underpinning the analogies implicit in the use of a semantic label for a morpho-syntactic phenomenon, the more explicit and rigorous typology becomes and the more helpful this discipline renders itself to students of the world's languages. I accept Haspelmath's methodology and undertake to employ it, while bearing in mind that comparative concepts are not linguistic entities and their elaboration is not a contribution to linguistics; they are manners of speaking, convenient fictions, conceits, precise only if reducible to the pair-wise comparison of bits of the grammars of specific languages.

With this methodological orientation in place the account of the 'perfect experiential' construction begins. The label 'perfect experiential' is built on the model of such terms in traditional grammar as 'perfect subjunctive' and 'aorist imperative'. No terminological choice precludes misunderstanding, but traditional terms of this type have the benefit of implying the conjunction of two categories (for example aorist and imperative) that are both members of superordinate categories (tense and mood), with both subordinate and superordinate categories well defined using language internal distributional criteria. Furthermore, although the literature is not innocent of meditations on aoristicity (Culioli 1980), traditional terms present themselves more clearly as arbitrary labels than their younger kin (ergative, anti-passive, etc.). The 'perfect experiential' takes as its paragon the suffix *-bzag* in 'Lhasa' Tibetan.

### 5.1.2 The perfect, direct perception, and inference

Comrie, who defines the perfect as encoding "the continuing present relevance of a past situation" (1976: 53), notes a correlation between the perfect and inferentials. In Bulgarian, Georgian, and Estonian "the Inferential form for the Past Tense consists of a Past Participle plus the Present Tense of the verb 'to be', i.e. a form [...] characteristic of the perfect" (1976: 110). He explains that with

the perfect, a past event is related to a present state, in other words the past event is not simply presented per se, but because of its relation to a present state. With the inferential, the past event is again not presented simply per se, rather it is inferred from some less direct result of the action (e.g. a second-hand report, or prima facie evidence, such as the wetness of the road leading to the inference that it has been raining, even when the raining itself has not been directly witnessed). Thus the semantic similarity (not, of course, identity) between perfect and inferential lies in the fact that both categories present an event not in itself, but via its results. (1976: 110)

In Comrie's example of witnessing wetness on the road the source of evidence is visual and the tense is perfect. In such a case, inference is the direct summation of the semantics of direct evidence and the semantics of the perfect.

Even in English sensory evidence when combined with perfect tense can yield inferential semantics. On entering the living room the night before Easter a parent, who sees torn bits of chocolate wrappers and chocolatey paw prints across the carpet, might say:

(1) *I see the dog **has found** the Easter chocolates.*

The use of the verb ‘see’ in example (1) ensures that this construction encodes visual evidence, and yet, the proposition ‘the dog found the Easter chocolates’ is an inference.<sup>7</sup> English is not a language with paradigmatic obligatory encoding of information source. Nonetheless, English is relevant because it shows that in principle inferential readings are latent in the semantics of seeing. One “cannot deny the fact that sentences like *I see that you are a liar* contain a direct indication to the speaker’s source of evidence, i.e. the senses” (Usoniene 1999: 217).

Visser’s general observation that “evidential meanings seem to be in line with the meaning of the tenses they are fused with, obeying the rules of logic” (2015: 308) applies without any obstacle to the interaction of direct witness and perfect. In the Duna perfect experiential, inferential semantics are “completely predictable given the usual meaning of the individual forms” (San Roque 2008: 379). Volkart (2000) spells out this predictability with reference to the perfect experiential in Tibetan.

Now if you say ‘I can see it’ with reference to something which is still in progress [...], this means that what you see is the process or event itself. If, on the other hand, you say ‘I can see it’ with reference to something that has been completed in the past [...], this means that the event must have some effect or result in the present time, since the notion of ‘seeing it’ can only refer to present results, but not to an action already completed. (2000: 143)

If one sees ‘that something has happened,’ one sees evidence in the present that the action took place in the past, and that the state of the world produced by the action continues into the moment of observation, i.e. one infers that the event took place in the past on the basis of evidence in the present.

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<sup>7</sup> The inferential reading of the verb ‘see’ with a subordinate clause in the perfect is not obligatory. The host of a party might say to a guest upon arrival: “I see that you’ve brought your Belgian boyfriend along” (BNC), with the boyfriend in full view. The present progressive is also compatible with both inferential and direct readings. In a sentence such as “I see you’re weaving a rug” the ‘direct evidence’ reading is triggered in a situation such as this: a student fails to arrive at a meeting. Another student locates him in the weaving studio, saying with a tone of indignation, ‘We expected you to be at the meeting in room three, but I see you are weaving a rug’. For the inferential reading both guest and host are in a living room. The guest sees a loom in the corner, approaches it, and says to his host ‘I see you’re weaving a rug’.

It is misplaced to object that inference is a cognitive operation relating premises and conclusion, pointing to the process of reasoning to arrive at a conclusion, whereas ‘direct perception’ does not point to the speaker’s reasoning process but directly to the evidence. On the one hand, since all experience is mediated by the sense organs, perception of an object as a Gestalt is always ‘inferred’. On the other hand, when Arthur Eddington watched the solar eclipse of 29 May 1919 from the island of Príncipe, he directly perceived the correctness of Einstein’s general theory of relativity. Tournadre and LaPolla emphasize the arbitrary nature of the distinction between ‘direct evidence’ and ‘inference’ by drawing attention to four scenarios which showcase the ambiguity.

- a. If we see smoke over a forest and say: ‘There is a fire’, is it sensory visual (and/or olfactory) or is it inferential based on seeing smoke (visual)? What we see is actually the smoke not the fire.
- b. If we look at a map and say: ‘Melbourne is near Sydney’, we might use a visual evidential looking at the map, but the map is not the reality. You need inference and the knowledge of the scale to draw conclusions concerning the distance.
- c. If we hear a sound on the roof and say ‘It is raining’, is it direct evidence or an inference based on the type of sound made by the rain drops?
- d. When the speaker sees somebody moving in a particular way and says: ‘He is coming’, it is also an inference based on the perception that the general direction of movement is toward the speaker. It can also be a confirmation that the person is actually coming, that is, the speaker knew somebody was to come and on seeing the person says the utterance as a confirmation, which could involve a different form of evidential marking. (2014: 258)

If a researcher decides *a priori* which scenarios constitute direct perception and which constitute inference, he studies only his own opinions. Instead, a semantic analysis should emerge empirically from the use in natural language of an identifiable morpho-syntactic category. Such an investigation makes clear the intimate contacts both between perfects and inferentials and between sensory evidentials and inferentials.

## 5.2 Previously noted perfect experiential constructions

The use of sensory evidentials for inferential semantics in specific tense and aspect constructions is attested in Sherpa, Duna, Oksapmin, Bogaia, and ‘Lhasa’ Tibetan. Because the description of the relevant phenomena in

Sherpa (a Tibetan dialect), and Duna, Oksapmin, and Bogaia (three languages of Papua New Guinea) has yet to garner controversy, it suffices here to summarize the findings of previous researchers. In contrast, although the majority of scholars describe *-bžag* as a perfect experiential in ‘Lhasa’ Tibetan, others see it as exhibiting a dedicated ‘inferential’ evidential category. The investigation here concurs with the majority of investigators.

5.2.1 Sherpa

Woodbury (1986) points out that the Sherpa form *nok* is used as a visual sensory evidential in the present tense (glossing with ‘I see, have seen...’) and an inferential evidential in the past (glossing with ‘I hear, I infer...’)

- (2) *ḍaa saa-p mi ti yembur-laa de-ki-nok*  
rice eat-NMLZ man he Kathmandu-DAT stay-HE  
‘The man who is eating rice lives in Kathmandu.’ (I see, ... have seen)  
(Woodbury 1986: 191)
- (3) *ʼjon-ki ʼti ʼkuršiq ʼti dzo-nok*  
John-ERG the chair it build-PI  
‘John built the chair.’ (I infer ... I hear ... )  
(Woodbury 1986: 93)

He attributes these two uses of *nok* to it being used for ‘immediate evidence’, either evidence of the event itself taking place in the present, or the evidence of the aftermath of an event that allows the speaker to make an inferential claim. Kelly (2004: 251/252) notes that *nok* can be used either as a visual sensory evidential in imperfective contexts and an inferential perfective contexts. Tournadre et al. classify *-noʼ* as sensory in all tenses (see Tab. 1). To them the inferential meaning of sensory evidentials in the perfect tense is apparently self explanatory.

Tab. 1: Sherpa tense and evidential affixes according to Tournadre et al. (2009: 271/272).

	Present (general)	Present (progressive)	Past (simple)	Perfect	Future
Egophoric	giwiʼ	inweʼ	win	niweʼ	in/up
Factual	uza	inweza	uza	niweza	uza
Sensory	ginoʼ	innoʼ	sung	noʼ	---

### 5.2.2 Duna

The Duna suffix *-rua* furnishes the next example of the perfect experiential construction. In Duna “the visual evidential *-rua* is used as a primary inflection in reference to states that are assumed to be ongoing at the time of utterance” (San Roque 2008: 380). When it is attached to the *-a* base of verbs with a stative meaning this suffix “marks states that the perceiver observed to be the case before the time of utterance” (San Roque 2008: 317, cf. example (4)). The *-a* base is broadly associated with imperfective aspect (San Roque 2008: 275).

- (4) *phekeriti-tia*, [...] *khao rindi-ta ra-rua*  
 factory.lw-PL redskin ground-LOC be/put-STAT.VIS.P  
 ‘Factories, [...] they exist in European places {I saw}.’  
 (San Roque 2008: 317)

However, when applied to the *-o* base (associated with perfective aspect) of action verbs “the verb is independently specified as perfective with respect to ‘now’, and *-rua* is added to give extra information about how the speaker knows that this event took place; they have seen something that suggests it” (San Roque 2008: 379). In other words, in this construction an action occurred in the past with results that carry forward until the time of the utterance, a typical perfect scenario. To be clear, the *-o* stem is perfective in opposition to the imperfective *-a* stem; it is the combination of the *-o* stem with *-rua* that yields a perfect-like construction. The speaker witnesses not the event itself, but merely its result (examples (5) and (6)).

- (5) *rowa hundi ro-rua*  
 fire disappear be.PFV-STAT.VIS.P  
 ‘The fire had gone out {I saw}.’  
 (San Roque 2008: 380)
- (6) *anda-ta hoa-ya-roko, Metai yeria aye-ya ngo-rua.*  
 house-LOC come-DEP-SW.SIM PSN chestnut gather-DEP go.PFV-STAT.VIS.P  
 ‘[I] was coming to the house, Metai had gone to gather chestnuts {I saw}.’  
 (San Roque 2008: 380)

The use of the English pluperfect in the translations of examples (5) and (6) makes clear that the action took place first, the speaker witnessed the resulting state later, and later still (at the time of speaking) the speaker reports the action to a listener, employing a visual evidential. With this construction Duna presents



a perfect experiential, the intersection of visual evidence and the perfect yielding the semantics of inference.

### 5.2.3 Oksapmin

To express inference Oksapmin uses the verb *x-* ‘to be’ in an auxiliary construction marked for visual evidence and perfective aspect in one of the three past tenses (far past, yesterday past, today past); the subordinate verb is marked in the personal evidential category (Loughnane 2009: 428–430).<sup>8</sup> Examples (7) and (8) demonstrate this construction.

- (7) *mlo-s=a*                      *ej*              *[ku*              *muk*              *ixil*              *sik*              *ap*  
 come.up-SEQ=LINK    gosh    woman    group    3p    sick(Eng)    house  
*m-tpul=a*                      *xu-ja]*                      ***x-n-gwel***  
 PRX.O-close(.SEQ)=LINK    go.PFV-PER.TODP.PL    be-PFV-VIS.YESTP  
 ‘I came up and saw that the ladies had already shut the health centre and gone.’  
 (Loughnane 2009: 428)

- (8) *wanxe=si*              *wanxe=si=a*              *awat*              *x-t-ja*  
 a.lot=WITH    a.lot=WITH=EMPH    decorate.self    DO-PFV-PER.TODP.PL  
***x-n-gopa=li=o***  
 be-PFV-VIS.FP.PL=REP=EMPH  
 ‘(It was seen that) lots and lots (of people) had decorated themselves.’  
 (Loughnane 2009: 428)

The use of the English pluperfect in the translations of examples (7) and (8) makes clear that the action took place first, the speaker witnessed the resulting state later, and later still (at the time of speaking) the speaker reports the action to a listener, employing a visual evidential.

Without the auxiliary *x-* ‘be’ the past perfective visual implies that the speaker was a direct witness to the event, as seen in examples (9) and (10).

- (9) *a*              *go*              *apuŋ=xe*              *i=xi-m*              ***əpli-n-gwel***  
 HES    2s    yesterday=FOC    like.that=DO-SEQ    come-PFV-VIS.YESTP  
 ‘Hey, (I saw that) you came like this too yesterday.’  
 (Loughnane 2009: 257)

<sup>8</sup> ‘Lhasa’ Tibetan also neutralizes in favor of the personal in subordinate clauses (cf. Chang and Chang 1984: 607–608; DeLancey 1990: 298).

- (10) *de=nun*      *s-pti=o*      ***n-p-n-gwe***  
 WHICH=TO go-IPFV.PL(.PRS)=QUOT 1/2.O-tell-PFV-VIS.TODP.PL  
 ‘(I saw that) they told us “where are you going?”’  
 (Loughnane 2009: 285)

Although the Oksapmin auxiliary construction with *x-* is structurally quite distinct in its formation from the use in Duna of *-rua* with base *-o* verbs, both constructions intersect explicitly morphological marking of sensory evidence and explicit morphological marking of perfective aspect to yield inferential meaning.

#### 5.2.4 Bogaia

San Roque and Loughnane draw attention to the possibility of an inferential interpretation of the visual evidence marker *-ki* in Bogaia when used with past tense verbs (2012: 128, 156).

- (11) *ho*      *mabaro*      *wagan*      ***mogona=ki***  
 [3SG pig hunt go.PST=VIS]  
 ‘He has gone to hunt pigs. (I saw him go.)’, or ‘I see evidence that he went.’  
 (San Roque and Loughnane 2012: 128, citing Seeland 2007: 9 and Seeland, personal communication)

Although San Roque and Loughnane (2012: 128) describe the verb form as ‘past’ they offer an English translation in the present perfect. In this case again perfect aspect and visual evidence, the perfect experiential, may give rise to an inferential interpretation, although this interpretation is not obligatory. Thus, Bogaia confirms that semantic inference can be grammatically expressed with a visual evidential.

#### 5.2.5 ‘Lhasa’ Tibetan

The suffix *bžag* in ‘Lhasa’ Tibetan provides a fifth example of a direct evidential marker used for inferential semantics.<sup>9</sup> Table 2 presents an overview of the

<sup>9</sup> Ideally one should draw a distinction among the language of the city of Lhasa itself, other dialects of Central Tibet, and the *lingua franca* of the Tibetan diaspora (Miller 1955; Róna-Tas 1985: 160–161). However, because previous authors do not clearly maintain these distinctions, it is not possible to do so here. In order to keep the ambiguity of the underlying language in focus I write ‘Lhasa’ with single quotes.

**Tab. 2:** ‘Lhasa’ Tibetan copula system (top) and verbal conjugation (bottom).

	Existential copula	Equational copula		
Personal	<i>yod</i>	<i>yin</i>		
Factual	<i>yod-pa-red</i>	<i>red</i>		
Experiential	<i>ḥdug</i>	<i>red-bžag</i>		
	Future	Present	Past	Perfect
Personal	<i>V-gi-yin</i>	<i>V-gi-yod</i>	<i>V-pa-yin</i>	<i>V-yod</i>
Factual	<i>V-gi-red</i>	<i>V-gi-yod-pa-red</i>	<i>V-pa-red</i>	<i>V-yod-pa-red</i>
Experiential	---	<i>V-gi-ḥdug</i>	<i>V-soñ</i>	<i>V-bžag</i>

‘Lhasa’ Tibetan verbal system and the place of *bžag* in this system.<sup>10</sup> The conclusion that the use of *V-bžag* in ‘Lhasa’ Tibetan undermines the preconception that inference and sense evidence require encoding with separate categories rests on the analysis of *V-bžag* as a perfect experiential (cf. Yukawa 1971: 190 *inter alios*). In contrast, DeLancey (1985: 65–67, 2003: 279) and Tournadre and Dorje (2009: 140–144, 410, 413) propose that *bžag* marks a separate ‘inferential’ category. For the analysis of *V-bžag* in ‘Lhasa’ Tibetan as a perfect experiential to stand secure, these alternative analyses call for reply.

**5.2.5.1 DeLancey’s analysis of Tibetan *V-bžag***

DeLancey’s opinion that “in a true evidential language” direct perception and inference “could not be in the same grammatical form” (2012: 536), is compatible with his own analysis of the ‘Lhasa’ Tibetan verb. In 1985, when writing about the meaning of *V-bžag*, DeLancey contrasts this morpheme with *V-pa-red*, and *V-soñ*, citing examples (12), (13), and (14).

- (12) *bsod-nams-kyis*    *thañ-kha*    *bkal-pa-red*  
Sonam-ERG      Thangka    hang-PST:FAC  
‘Sonam hung up a Thangka’ (based on report or inference)  
(DeLancey 1985: 65)

**10** The analysis in Tab. 2 reflects my own understanding of the Tibetan verbal system. In non-finite clauses the difference among the three evidential moods is often neutralized in favor of the personal (cf. note 8). This paper will not discuss the constructions *V-byuñ*, *V-myoñ*, *V-yoñ*, *V-pa-ḥdug*, etc. which, although essential parts of a complete picture of the ‘Lhasa’ verb, are not relevant to the current discussion.

- (13) *bsod-nams-kyis*    *than-kha*    ***bkal-son***  
 Sonam-ERG            Thangka    hang-PST:EXP  
 ‘Sonam hung up a Thangka’ (based on direct perception)  
 (DeLancey 1985: 65)
- (14) *bsod-nams-kyis*    *than-kha*    ***bkal-bzag***  
 Sonam-ERG            Thangka    hang-PRF:EXP  
 ‘Sonam hung up a Thangka’ (inferred from direct perception of the hanging Thangka)  
 (DeLancey 1985: 66)

Discussing the difference between the meaning of *V-bzag* and *V-son* DeLancey refers to

the inadequacy of a simple notion of direct evidence here, for there are clearly two distinct types of direct perception which can be distinguished: direct perception of the actual event being reported, and direct perception of the subsequent state which directly resulted from that event. (DeLancey 1985: 67).

DeLancey correctly describes the semantics of *V-bzag* and *V-son*, but because he contrasts two past tense forms (*V-pa-red* and *V-son*) with a perfect tense form (*V-bzag*), he interprets a tense distinction as an evidential distinction. His account is only possible because he conflates the past and perfect tenses, ignoring several terms of the verbal paradigm, in particular *V-yod-pa-red*, the perfect equivalent of *V-pa-red*.

DeLancey overlooks many publications that treat *V-bzag* as a perfect. According to Sandberg *V-pa-yin* and *V-pa-red* reflect “what the French would style the Past Indefinite” whereas *V-yod* and *V-ḥdug* are an “expression of the perfect tense active” (1894: 53). Goldstein and Nornang classify *V-yod*, *V-yod-pa-red*, and *V-bzag* as ‘present perfect’, distinct from *V-pa-yin*, *V-pa-red*, and *V-son*, which they label ‘past’ (1970: 408). Yukawa clearly identifies *V-bzag* as a perfect experiential.

完了動詞に *duu* がつくと、その行為がおこったことが現在目のことから歴然としていることもあらわす。つまり、何らかの感覚で感じられるわけである。なお、肯定形は *šaa* を用いる。

When it comes to *ḥdug* in the perfect, it describes the fact that evidence of the action that occurred is now before the eyes, i.e. that one experiences a sensation in some way. For the unnegated form *bzag* is used. (Yukawa 1971: 190)

Yukawa also describes *V-yod* and *V-yod-pa-red* as having perfect semantics (1971: 189/190). Kitamura describes *V-pa-yin*, *V-pa-red*, and *V-son* as ‘past’ (1977: 31/32) and *V-yod*, *V-yo-pa-red*, and *V-bzag* as ‘present perfect’ (1977: 33). Chang

**Tab. 3:** ‘Lhasa’ Tibetan copula system (top) and verbal conjugation (bottom) according to Tournadre and Dorje (2009: 410).

	Existential copula	Essential copula		
Personal	<i>yod</i>	<i>yin</i>		
Factual	<i>yod-pa-red</i>	<i>red</i>		
Testimonial	<i>ḥdug</i>	---		
Revelatory	---	<i>red-bžag</i>		
	Future	Present	Past	Perfect
Personal	<i>V-gi-yin</i>	<i>V-gi-yod</i>	<i>V-pa-yin</i>	<i>V-yod</i>
Factual	<i>V-gi-red</i>	<i>V-gi-yod-pa-red</i>	<i>V-pa-red</i>	<i>V-yod-pa-red</i>
Testimonial	---	<i>V-gi-ḥdug</i>	<i>V-soñ</i>	---
Inferential	---	---	---	<i>V-bžag</i>

and Chang identify *V-yod*, *V-yo-pa-red*, and *V-bžag* as the ‘present perfect’ (1984: 620–622); they describe *-bžag* as having the semantics of “first-hand experience” (Chang and Chang 1984: 621). Hoshi describes *V-pa-yin*, *V-pa-red*, and *V-soñ* as ‘completed non-durative’ (完了-非繼續相) and *V-yod*, *V-yod-pa-red*, and *V-bžag* as ‘completed durative’ (完了-繼續相) (1988: 187/188).<sup>11</sup> Tournadre also clearly distinguishes *V-pa-yin*, *V-pa-red* and *V-soñ* as ‘aorist’ and *V-yod*, *V-yod-pa-red*, and *V-bžag* as ‘perfect’ (1996: 245). Denwood likewise distinguishes *V-pa-yin*, *V-pa-red* and *V-soñ* as ‘past’ (1999: 142–149) and *V-yod*, *V-yod-pa-red*, and *V-bžag* as ‘perfect’ (1999: 158–161). Volkart (2000) points out that an inferential meaning of a perfect experiential is found not only in ‘Lhasa’ Tibetan, but in a number of Central Tibetan dialects. Apparently unaware of this tradition of scholarship, in his most recent discussion of *V-bžag*, DeLancey essentially repeats his 1985

<sup>11</sup> I see ‘completed durative’ (完了-繼續相) as equivalent to Comrie’s “continuing present relevance of a past situation” (1976: 53), i.e. the textbook definition of ‘perfect’, but the reader may note that Hoshi uses the term 完了, normally identified with English ‘perfect’, in her terminology both for the past (*V-pa-yin*, *V-pa-red* and *V-soñ*) and the perfect (*V-yod*, *V-yod-pa-red*, and *V-bžag*).

**Tab. 4:** Re-presentation of ‘Lhasa’ Tibetan verbal system emphasizing morphological links among revelatory, inferential and testimonial.

	Existential copula	Essential copula		
Personal	<i>yod</i>	<i>yin</i>		
Factual	<i>yod-pa-red</i>	<i>red</i>		
Testimonial	<i>ḥdug</i>	---		
Revelatory	---	<i>(red-ḥdug)</i>		
	Future	Present	Past	Perfect
Personal	<i>V-gi-yin</i>	<i>V-gi-yod</i>	<i>V-pa-yin</i>	<i>V-yod</i>
Factual	<i>V-gi-red</i>	<i>V-gi-yod-pa-red</i>	<i>V-pa-red</i>	<i>V-yod-pa-red</i>
Testimonial	---	<i>V-gi-ḥdug</i>	<i>V-soñ</i>	---
Inferential	---	---	---	<i>(V-ḥdug)</i>

discussion;<sup>12</sup> he continues to ignore *V-yod*, and *V-yod-pa-red* and fails to recognize the perfect and past as separate tenses (2003: 227/228).<sup>13</sup>

Just as the semantics of the experiential “is an inevitable consequence of its position in a paradigm where it contrasts with other epistemic categories, the personal and generic” (DeLancey 2012: 554), so too the semantics of the ‘Lhasa’ Tibetan perfect tense is an inevitable consequence of its position in a paradigm where it contrasts with the future, present, and past. Returning to DeLancey’s examples about hanging up Thangkas, if verb tense is held constant, the three evidential categories contrast in the past with the triplet of examples (15), (16), and (17) or in the perfect with the triplet of examples (18), (19), and (20).

Past

- (15) *ñas*            *thañ-kha*    ***bkal-pa-yin***  
me-ERG    Thangka    hang-PST:PRS  
‘I hung up a Thangka’ (I know; I did it)

<sup>12</sup> DeLancey does change other elements of his analysis of the ‘Lhasa’ Tibetan verbal system, for example introducing the terminology ‘conjunct-disjunct’ (2003: 278–280). These changes draw his analysis further out of step with other researchers on Tibetan (cf. Tournadre 2008).

<sup>13</sup> As recently as 2012 DeLancey appears to regard ‘Lhasa’ Tibetan as having a separate ‘inferential’ category (2012: 536). Although he does not mention *V-bžag* or explicitly posit any other inferential marker in ‘Lhasa’ Tibetan, he does comment that “the immediate category contrasts with the personal and inferential categories” (DeLancey 2012: 554).

- (16) *bsod-nams-kyis thañ-kha bkal-pa-red*  
 Sonam-ERG Thangka hang-PST:FAC  
 ‘Sonam hung up a Thangka’ (I know; people know)
- (17) *bsod-nams-kyis thañ-kha bkal-soñ*  
 Sonam-ERG Thangka hang-PST:EXP  
 ‘Sonam hung up a Thangka’ (I know; I saw)

Perfect

- (18) *ñas thañ-kha bkal-yod*  
 me-ERG Thangka hang-PRF:PRS  
 ‘I have hung up a Thangka.’ (I know; I did it)
- (19) *bsod-nams-kyis thañ-kha bkal-yod-pa-red*  
 Sonam-ERG Thangka hang-PRF:FAC  
 ‘Sonam has hung up a Thangka’ (I know; people know)
- (20) *bsod-nams-kyis thañ-kha bkal-bžag*  
 Sonam-ERG Thangka hang-PRF:EXP  
 ‘Sonam has hung up a Thangka’ (I know; I saw)

If one distinguishes the past and perfect tenses, the apparent contrast between a ‘direct’ V-*soñ* and an ‘inferred’ V-*bžag* disappears. Instead, both V-*soñ* and V-*bžag* encode witnessed evidentiality and the difference in their semantics is the difference between the past and the perfect.

### 5.2.5.2 Tournadre and Dorje’s analysis of Tibetan V-*bžag*

Tournadre and Dorje posit five evidential categories in their analysis of the ‘Lhasa’ Tibetan verbal system: personal, factual, testimonial, revelatory, and inferential (2009: 140–144, 410, 413). Table 3 summarizes their presentation of the verbal system.<sup>14</sup> In this analysis three evidential categories, testimonial, revelatory, and inferential, are in complementary distribution. The testimonial occurs as an existential copula and as a suffix of the past and present. The revelatory and the inferential are also in complementary distribution: the revelatory occurs only as an essential copula and the inferential occurs only as a perfect verb ending. In contrast, the personal and assertative occur as existential copula,

<sup>14</sup> In an inconsequential terminological adjustment to agree with the overall usage here, I change ‘egophoric’ to ‘personal’. ‘Egophoric’ is an unattractive neologism and implies some special relationship with the first person (*ego*), but all Tibetan evidentials can occur with any of the grammatical persons (Hill 2013b).

essential copula, and as suffixes of the present, past, perfect, and future. From a methodological perspective, if two categories are in complementary distribution it is possible to unite them as a single category (Harris 1951: 303–309). Until Tournadre and Dorje make explicit their reasoning for separating the inferential and revelatory from the testimonial, the distribution of the relevant forms compels their unification.

In addition to improving the overall elegance of the analysis, there are morphological reasons for combining the testimonial, revelatory, and inferential. As seen in Tab. 3, the revelatory essential copula *red-bźag* shares the component ‘*bźag*’ with the inferential perfect ending *V-bźag*. This formal similarity suggests a special relationship between the revelatory and the inferential. Tournadre and Dorje’s inferential and revelatory evidential categories also bear formal links with the testimonial, which Tab. 3 fails to capture. The interrogative form of *red-bźag* is *red-ḥdug*, and it is negated as *red-mi-ḥdug* (cf. Tournadre and Dorje 2009: 411). An alternative form of the perfect inferential is *V-ḥdug*, and *V-bźag* itself is negated as *V-mi-ḥdug* (Kitamura 1977: 33; Chang and Chang 1984: 620; Hoshi 1988: 286–291; Tournadre and Dorje 2009: 140).<sup>15</sup> If one presents the ‘Lhasa’ verbal system in tabular form again, emphasizing these formal ties among the revelatory, inferential, and testimonial (cf. Tab. 4), the desirability of uniting all three together as a single category is readily apparent. Amending Tournadre and Dorje’s analysis to account for these distributions results in Tab. 2 above.<sup>16</sup>

### 5.2.5.3 Tibetan *V-bźag* is a perfect experiential

Having considered in turn the arguments of DeLancey and Tournadre and Dorje that *V-bźag* is an inferential marker, it is convenient to summarize the case that *V-bźag* is a perfect experiential. DeLancey arrives at his analysis by omitting several components of the Tibetan verbal paradigm. For Tournadre and Dorje the inferential is in complementary distribution with the testimonial and revelatory. Taken together the testimonial, inferential, and revelatory are used in the same morpho-syntactic environments as the personal and factual evidential categories. Consequently,

<sup>15</sup> Tournadre (1996: 245) and Denwood (1999: 159–160) distinguish *V-bźag* and *V-ḥdug* as having somewhat separate meanings. However, as seen, Yukawa (1971: 190), Chang and Chang (1984: 620), and Tournadre and Dorje (2009: 140, 411) reject such a distinction. Given the discussion in Volkart (2000) and Denwood (1999: 159) it seems likely that *V-bźag* is the form used in the city of Lhasa itself whereas *V-ḥdug* is current in other parts of Central Tibet (cf. Note 9).

<sup>16</sup> Tournadre and LaPolla (2014: 241) refer to *ḥdug* as ‘sensory’ and *red-bźag* as ‘sensory (inferential)’ this choice of terminology implies that Tournadre now agrees with the analysis proposed here.



structuralist methodology leads to the inevitable conclusion that it is a mistake to distinguish the inferential and revelatory from the testimonial. The morphological content of the forms in question further buttresses this conclusion; the morpheme *ḥdug* appears in all three. These considerations all weigh in favour of positing only three evidential categories for ‘Lhasa’ Tibetan, viz. personal, factual, and testimonial. More specifically, the suffix *V-bžag* patterns paradigmatically like a perfect testimonial, it has morphological links with the testimonial (via *V-ḥdug* and *V-mi-ḥdug*), and its inferential meaning precisely sums the semantics of the testimonial and the perfect; *V-bžag* is a perfect experiential with a derived use to express inferences.

### 5.3 Newly proposed examples of the perfect experiential

The perfect experiential constructions in Sherpa, Duna, Oksapmin, Bogaia, and ‘Lhasa’ Tibetan, by undermining confidence in the iron-clad boundary between direct perception and inference, inspire an open-mindedness that constructions hitherto described in some other fashion may also permit analysis as perfect experientials. The morphemes *oleo* in Kham and *-qa* in Kashaya present such cases.

#### 5.3.1 Kham

Watters describes *oleo* in Kham not as a visual evidential but as a mirative marker (2002: 288–296). Nonetheless, equipped with knowledge of the perfect experiential in other languages, it is possible to resolve those objections that DeLancey (2012: 535–538) and Hengeveld and Olbertz (2012: 495/496) raise to my (Hill 2012: 420/421) analysis of *oleo* as a visual evidential.

Hengeveld and Olbertz draw attention to examples (21) and (22) in Kham (2012: 495), which Watters (2002: 292) analyzes as showing mirativity,<sup>17</sup> but which I understand as consistent with an analysis in terms of sense evidence (Hill 2012: 421). According to Hengeveld and Olbertz (2012: 495/496) example (21) “is clearly a case of direct perception” and example (22) is “a case of inference” (Hengeveld and Olbertz 2012: 495).

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<sup>17</sup> Hengeveld and Olbertz agree with Watters that these examples merit the moniker ‘mirative’ (2012: 495), but they redefine what is meant by this label (2012: 498 *et passim*); i.e. they disagree with DeLancey and Watters about the grammatical meaning that *oleo* in Kham exhibits.

- (21) *mənlal-lai tə “e babəi mənlal*  
 Manlal-OBJ FOC hey man Manlal  
*nə-kə zə ci syā:-də u-li-zya-o oleo sani*  
 DIST-at EMP CEP sleep-NF 3S-be-CONT:NML MIR CONFIRM  
 (I said) to Manlal, “Hey man, Manlala, he’s right there sleeping, see!”
- (22) *ŋa-khurja ŋa-sə-məi-wo oleo*  
 my-knife 1S-CAUS-lose-NML MIR  
 ‘I lost my knife!’ (I just discovered it)  
 (Watters 2002: 292 example 19)<sup>18</sup>

These two sentences share a common morphological element and a common semantic element. The common morphological element is the *oleo* construction. The common semantic component is direct perception. There is also a morphological and a semantic difference between the two sentences. Example (21) includes the marker of continuous aspect *-zya* (Watters 2002: 89) and refers to present time. In contrast, since “the default aspect for this paradigm is the perfective, which is unmarked” (Watters 2002: 89) the lack of *-zya* in example (22) indicates perfective aspect and the sentence refers to past time.<sup>19</sup> The inferential reading in Kham emerges as an interaction of direct evidence with certain tense or aspect categories.

In his argument against *oleo* as a marker of direct evidence, DeLancey contrasts example (21) with example (23). For DeLancey example (21) is used “when the information being related is perceived at first hand” and example (23) a statement “based on inference [...] said when the speaker first discovered traces showing that the leopard had eaten his dog” (DeLancey 2012: 536).

- (23) *a-kə zə o-kəi-wo oleo*  
 here-at EMP 3sg-eat-NML MIR  
 ‘He ate [him] right here!’  
 (DeLancey 2012: 536, cf. Watters 2002: 291)

DeLancey rightly surmises that I see no obstacle to analyzing (23) as visual evidence “because, after all, the speaker did see SOMETHING” (DeLancey 2012: 536

<sup>18</sup> There is an ambiguity in Watters translation as to whether the knife or the fact of loss is the antecedent of ‘it’.

<sup>19</sup> The reader may object that ‘perfective aspect’ (with reference to past time) is not a ‘perfect’, so *oleo* used with perfective aspect cannot be a ‘perfect testimonial’. This objection places too much significance on Watter’s terminological choices. Example (22) is indubitably an instance of “continuing present relevance of a past situation” (Comrie 1976: 53). Thus, *oleo* used with a verb unmarked for aspect jointly express perfect semantics, even if Kham has no morphosyntactic category for which ‘the perfect’ is a tempting label.

emphasis in original). The same aspectual contrast observed between examples (21) and (22) also obtains between (21) and (23); consequently, the same explanation is available. Example (23), where the speaker infers that a leopard has eaten a dog and expresses this inference with *oleo* in the perfective aspect, is parallel to example (1), where the speaker infers that a dog has eaten Easter chocolates and expresses this inference with ‘see’ in the English present perfect.

In the Kham examples (22) and (23) the direct perception is not the perception of an action or a presence, but of an absence. As DeLancey puts it, “the speaker is a direct witness to the proposition he states in (5) [= 21], and is explicitly not in (6) [= (23)]” (2012: 536). Whether or not witness of absence, of nothingness, is indeed direct perception is a philosophical question, and we “must leave to philosophers the task of clarifying the status of semantic, i.e. conceptual categories considered independently of their linguistic embodiment” (Lazard 1999: 105); in language such things happen. The Classical Tibetan example (24), in which two brothers discover that their younger brother has been eaten by a tiger, is narratively close to the Kham example (23). Just as in the Kham example the dog owner did not witness the leopard consuming his dog, in the Tibetan example the two brothers did not witness the eating of their sibling but only its after effects, nonetheless the passage uses the direct evidential marker *hdug*, which DeLancey himself now analyses in ‘Lhasa’ Tibetan as an ‘immediate evidential’ (2012: 554).<sup>20</sup>

- (24) *bltas-pa-na / nu-bo*                      *tha-chuñ stag-gis*    *zos-te / śa-dan*  
 look-NMZ:CV    younger.brother    younger    tiger-AGN    eat-CV    flesh-ASS  
*khrag-gis kun-tu*                      *bsgos nas/ rtsog-rtsoḡ ltar*  
 blood-AGN    everywhere-TRM    stain-CV    filth                      like-TRM  
*hdug-par*                      *mthoñ-nas*  
 is-TES:NMZ:TRM    see-CV  
 ‘When they looked (his older brothers) saw, that the younger brother had  
 been eaten by a tiger, that everywhere was filthily stained with flesh and  
 blood’  
 (Hahn 1996: 191, my translation)

Tuyuca is yet another language in which the visual witness of absence is a valid means to express an inferred act of feline violence. In a situation very close to the leopard slaying a dog in Kham, or the tiger eating a young prince in Tibetan,

<sup>20</sup> DeLancey claims that in Classical Tibetan *hdug* is not an evidential marker but instead a verb ‘sit’ (1992: 52). It is unclear how he would analyze *hdug* in example (24). For further discussion of testimonial evidentiality in Classical Tibetan see Hill (2013a).

in Tuyuca one can relate the inferred slaying of a dog by a jaguar with a visual evidential.

On one occasion a man returned from his field and, using a visual evidential, told me that a jaguar had killed his dog. In astonishment, I asked him if he had seen the event. He said that he had not [...] he *saw* marks on the ground where the jaguar had dragged him off. (Barnes 1984: 263 emphasis in original).

Unfortunately Barnes does not provide the original sentence that the man said to her.

Putting aside the predatory activities of big cats, the use of negated direct evidentials shows that seeing an absence is still seeing. In the ‘Lhasa’ Tibetan example (25) the speaker sees the absence of shelves.

- (25) *thab      ḥdiḥi      steṇ-la      ña      skam-paḥi      phyir-du*  
       hearth    this-GEN    above-OBL    fish    dry-GEN    in.order-to  
*grab      mi-ḥdug*  
       method   not-exist-EXP  
       ‘There are no shelves over the fire for the drying of fish.’  
       (Lewin 1879: 71, exercise 61, example 6)

In English it is also possible to see absences, as examples (26) and (27) show.

- (26) *But the second my eyes cleared floor level I **saw** that the relics **had gone!*** (BNC)

- (27) *I **see** that y you **weren’t there** at that meeting on ...* (Looking at the minutes of a previous meeting) (BNC)

If the experiential in Tibetan, the visual evidential in Tuyuca, and the verb ‘see’ in English can encode the visual witness of absence, there is no reason a priori that this possibility should escape *oleo* in Kham.

DeLancey offers no evidence for his claim that “in a true evidential language” examples (21) and (23) “in the context in which they were made, could not be in the same grammatical form” (2012: 536). If his view is accurate than the possibility remains open that like English, neither Tibetan, Tuyucan, nor Kham are ‘true’ evidential languages. In the absence of a discussion of how a ‘true evidential language’ differs from other types of evidential languages, an effort to ponder DeLancey’s intention would drift into speculation (cf. §1.1 above).

DeLancey’s contention that the ‘Lhasa’ Tibetan equivalents of (21) and (23) would be effected in two distinct evidential categories, respectively the ‘direct evidential’ and ‘inferential’ (2012: 536), is only true if one follows his analysis of the Tibetan verbal system, rejected above (§2.5.1). Examples (28) and (29) provide translation into ‘Lhasa’ Tibetan of the Kham examples (21) and (23); *contra* DeLancey these two sentences use the same experiential evidential category, the difference between *V-gi-ḥdug* and *V-bʒag* being one of tense and not evidence (cf. §2.5).

(28) *gzigs pha-gir gñal-gyi-ḥdug*

leopard there-OBL sleep-PRS-TEST

‘The leopard is sleeping over there’

(29) *ḥdir kho bzas-bḥag*

here-OBL he eat-PRF-TEST

‘(The leopard must have) eaten him right here’

(cf. example 24 for an analogous example in Classical Tibetan also in the experiential)

In sum, Watters does not provide evidence sufficient to preclude the analysis of *oleo* as a direct evidential; until such evidence is in hand the conclusion that *oleo* marks the ‘mirative’ is premature and *oleo* should not serve as the prime example of “mirativity as a separate category” (Aikhenvald 2004: 211).<sup>21</sup> Whatever future research on Kham may yield, those who do fieldwork on this language would do well to not enter upon their work with the preconception that direct evidence and inference are irreconcilably opposed. The published examples of *oleo* admit themselves to analysis as direct evidentials.

### 5.3.2 Kashaya

Oswalt (1961, 1986) describes Kashaya as a language that has eight evidential categories in the ‘spontaneous’ tense. He distinguishes two types of inferential evidentials: ‘inferential I’ the suffix *-qa* and ‘inferential II’ the suffix *-bi*. In his 1961 contribution Oswalt draws both syntactic and semantic distinctions between these two suffixes (1961: 243/244), but in his 1986 contribution he presents them as semantically identical but distinct in distribution, with *-qa* occurring in main clauses and *-bi* occurring only in subordinate clauses.

Oswalt’s description of inferential suffixes in Kashaya is equivocal and methodologically unsatisfactory. After reporting that *-bi* occurs predominantly in subordinate clauses (1986: 41), he discusses *-bi-w* “where *-w* is probably the Absolutive” as the “most common nonsubordinating combination” (1986: 42). Thus, Oswalt is unsure of whether *-w* is the Absolutive and there are other non-subordinating

<sup>21</sup> Examples of *oleo* in Kham constitute four of the seven examples that Aikhenvald uses to illustrate ‘mirativity as a separate category’ (2004: 211–214). As for the one example of *=(a)m* given from Cupeño, Aikhenvald more recently admits there “is unfortunately no way the exact status of *=(a)m* can be ascertained” (2012: 467). Her remaining two examples are from Tariana (cf. Hill 2012: 425–426).

combinations into which *-bi* enters, which he refrains from enumerating. One non-subordinating combinations into which *-bi* enters is *-bi-qa*; “no difference has been determined for the meaning of this form versus either suffix separately” (1986: 42). In gross violation of the ‘one form one meaning’ principle, the speaker of Kayasha is burdened with three equivalent ways of expressing inference in finite clauses: *bi-w*, *-qa*, and *-bi-qa*; it must be a difficult language to master.

Based on Oswalt’s account, de Haan unites *-qa* and *-bi* as one inferential category in his discussion of Kashaya evidentiality (2001: 198). This unification is not justifiable. Such a unification would be possible only if the two suffixes together patterned similarly to other evidential suffixes. Since the suffix *-bi* is mostly restricted to subordinate clauses, if *-qa* were precluded from subordinate clauses, then together the two evidentials would pattern like other evidential categories such as visual *-ya*, which occurs in both finite and subordinate clauses. However, because Oswalt does not preclude the use of *-qa* in subordinate clauses, such a unification is not permissible.

Perhaps it is premature to use Kashaya at all in typological discussions of evidentiality until its structural description is more precisely formulated. I nonetheless indulge in a few remarks on the basis of Oswalt’s examples. Almost all examples of ‘Inferential I’ have English translations with a present perfect and the context normally requires visual evidence (examples (30)–(33)).

- (30) *mu cohtoc<sup>h</sup>q<sup>h</sup>*  
*mu cohtoc-qa*  
 he leave-INFER.I  
 ‘He has left’ (Said on discovering that the person is no longer present)  
 (Oswalt 1986: 38)
- (31) *ʔahq<sup>h</sup>a p<sup>h</sup>imaqam = t<sup>ʔ</sup>o*  
 river they-must-have-gone-across  
 ‘They must have gone across the river’ (This was judged from the tracks)  
 (Oswalt 1961: 244)<sup>22</sup>
- (32) *kalikak<sup>h</sup> dima: s’i-qa-c’-q<sup>h</sup>*  
 book holding make-cause-self-INFER.I  
 ‘He has had a picture taken of himself holding a book’  
 (Oswalt 1986: 39)

<sup>22</sup> Oswalt does not segment the verb form *p<sup>h</sup>imaqam* but underlines the ‘q’ to note it as the inferential-I form (1961: 244).

(33) *sinamq<sup>h</sup>*

drown-INFER.I

‘He must have drowned’

(Oswalt 1961: 243)

(34) *sapa-tu mĩtón̄tolowa-du*

shoes that-are-rubbing-sore-on-his-toes

*tala-q<sup>h</sup>*

he-must-be-wearing

‘He must be wearing shoes that are rubbing sore spots on his toes’

(This was deduced from the person’s manner of walking in new shoes)

(Oswalt 1961: 244)

In examples (30) and (31) the translation makes the visual nature of the evidence explicit. In example (32) the evidence is “the existence of the picture, which the speaker has seen” (de Haan 2001: 200). Example (33) is said when “the speaker saw the body cast up on a beach or floating in the water” (Oswalt 1961: 243). Example (34) does not have an English present perfect in the translation, but does make the source of visual evidence explicit.

According to Oswalt *qa-* marks evidence from senses other than vision and hearing “to a certain extent” (1986: 38); he offers example (35) as evidence.

(35) *cuhni: muʔt’a-q<sup>h</sup>*

bread cook-INFER.I

‘[I smell that] bread has been cooked’.

(Oswalt 1986: 38).

However, it is noteworthy that example (35) also employs the present perfect tense in the English translation. If ‘Inference-I’ is used for smell, taste, and touch in general, then one ought to be able to say ‘I smell that the vegetables are cooking’ using this evidential. In the absence of an example of ‘Inference-I’ used in habitual or imperfective contexts, nothing in Oswalt’s description precludes the conclusion that *-qa* is a morpheme that encodes the overlap between sense evidence and perfect tense, another example of the perfect experiential.

## 5.4 Conclusion

With due allowance for the anthropomorphism this study concurs with de Haan that languages “can choose how they wish to treat the inferential evidential” (2001: 194). Willett, Aikhenvald, DeLancey, and Hengeveld and Olbertz are mistaken in their belief that “direct vs. indirect evidence is the fundamental evidential distinction” (DeLancey 2012: 540), as the perfect experiential in Sherpa, Duna,

Oksapmin, Bogaia, and ‘Lhasa’ Tibetan shows. Disabused of this misconception it is possible not only to dismiss the objections of DeLancey (2012) and Hengeveld and Olbertz (2012) to the analysis of *oleo* in Kham as a direct evidential, but to potentially describe *-qa* in Kashaya as yet another perfect experiential. Apart from these six perfect experientials, Foe, Maricopa, Hualapai, and Matses reveal other types of interaction between direct evidence and inference.

## Abbreviations

1s first singular, 3s third singular, ASS associative, AUX auxiliary verb, BNC British National Corpus, CAUS causative, CEP counter-expectation particle, CONFIRM confirmative, CONT continuous aspect, CV converb, DEP dependent, EMP emphatic, EMPH emphatic, ERG ergative, EVID evidential marker, FAC factual, FOC focus, FP far past, HE habitual evidential, HES hesitation, INFER-I inferential evidential 1, IPFV imperfective, LINK prosodic linker, NF non-final marker, NML nominalizer, NMZ nominalizer, MIR mirative, O object, OBJ objective, P previous evidence, PAST past, PER personal-factual evidential in Oksapmin or personal in Tibetan, PFV perfective, PI past inferential, PL plural, PRF perfect, PRS present, PRX proximal, PSN personal name, QUOT quote, REP reported evidential, SEQ sequential, SIM simultaneous, SS same- subject/reference marker, STAT stative, SUBJ subject marker, SW switch, EXP experiential, TRM terminative, TODP today past, VIS visual evidence, YESTP yesterday past.

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